

City of Sunnyvale
Ten Year Project Costs
by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2003-04	Plan 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Plan 2013-14	Ten Year Plan Total	Project Grand Total
<div>Category: Infrastructure Type: Street & Traffic Signals</div>															
820160	Mathilda Avenue Traffic Signal Controller Replacement	192,734	184,552	0	0	0	0	0	0	0	0	405,647	413,760	819,407	1,196,693
820180	Traffic Signal Controller Replacement	486,271	118,095	83,144	18,427	134,307	58,711	175,996	81,444	62,305	127,103	108,036	110,197	959,670	1,564,036
820190	Traffic Signal Underground Replacement	395,850	582,974	50,500	818,981	0	568,045	144,851	147,748	150,703	461,152	313,584	319,856	2,975,420	3,954,244
820200	Traffic Signal Light Emitting Diode Array Replacements	57	0	55,090	56,192	57,316	58,462	59,632	60,824	62,041	63,282	64,547	65,838	603,224	603,281
822710	Mathilda Avenue Railroad Overpass Improvements	85,806	9,414,194	8,000,000	0	0	0	0	0	0	0	0	0	8,000,000	17,500,000
Total		1,160,718	10,299,815	8,188,734	893,600	191,623	685,218	380,479	290,016	275,049	651,537	891,814	909,651	13,357,721	24,818,254

Project Information Sheet

Project: 820160 Mathilda Avenue Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund:	610 Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of aging traffic signal controllers/coordination equipment on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. The new coordination equipment is compatible with other arterial systems for Sunnyvale Saratoga Road and Fair Oaks Avenue. The estimated life of the new controllers is 10 years.

Service Level

This project will replace the traffic signal controllers/interconnect system on Mathilda Avenue from El Camino Real to Ahwanee/Almanor Avenues. The existing equipment has reached the end of its useful life and is in need of replacement.

Issues

This is the City match for the TFCA grant 820161 Central Sunnyvale Arterial Management project. This project is currently under construction and should be completed within the next few months.

Project Financial Summary

Financial Data	Prior Actual	Budget 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	10 Year Budget	Grand Total
Project Costs	192,734	184,552	0	0	0	0	0	0	0	0	405,647	413,760	819,407	1,196,693
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		184,552	0	0	0	0	0	0	0	0	405,647	413,760	819,407	
Total	192,733	184,552	0	0	0	0	0	0	0	0	405,647	413,760	819,407	1,196,692
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820180 Traffic Signal Controller Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund:	610 Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of traffic signal controllers at the end of their estimated useful life. Traffic signal controllers are all solid state. Controllers will require replacement at approximately 15-20 year intervals due to obsolescence or changes in functionality. Pending upgrades include Evelyn/Frances, Pastoria/Washington, Bernardo/Heatherstone, Bernardo/Washington.

Service Level

This project will improve traffic flow at intersections by allowing the newer and more advanced features of traffic signal controllers to be put into place throughout the city as they become available. In addition, it will increase the reliability of the City's signal control equipment, thereby reducing its liability exposure.

Issues

This project provides for the replacement of traffic signal controllers throughout the City as they reach the end of their useful lives. These computer-based controllers deteriorate with time and replacement parts become difficult to find as the equipment is phased out of manufacture.

Project Financial Summary

Financial Data	Prior Actual	Budget 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	10 Year Budget	Grand Total
Project Costs	486,271	118,095	83,144	18,427	134,307	58,711	175,996	81,444	62,305	127,103	108,036	110,197	959,670	1,564,036
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		118,095	83,144	18,427	134,307	58,711	175,996	81,444	62,305	127,103	108,036	110,197	959,670	
Total	486,272	118,095	83,144	18,427	134,307	58,711	175,996	81,444	62,305	127,103	108,036	110,197	959,670	1,564,037
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820190 Traffic Signal Underground Replacement

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation	Goal:	1.C3.1, 1.C3.3, 1.C3.4	Fund:	610 Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund:	100 General Fund Assets

Statement of Need

This project provides for the replacement of traffic signal underground conduits and structures at the end of their estimated life span. Underground cables and conduits have a life expectancy of 20 - 40 years with an average of 35 years. Pending installations include Washington/Pastoria, Evelyn/Frances, Fair Oaks/Kifer, Fair Oaks/Wolfe, Wolfe/Arques, and Sunnyvale-Saratoga/Fremont. In FY 2002/2003, Mathilda/Ahwanee, Mathilda, Maude, and Wolfe/Old S.F. installations were completed.

Service Level

This project will help to minimize the inconvenience to the traveling public when underground signal facilities begin to fail, by having the means to deal with them already in place.

Issues

This project provides for the replacement of underground traffic signal conduit and conductors as they reach the end of their useful life. If not replaced, the repairs and downtime of traffic signals could be significantly affected. Life cycles vary from 20 – 40 years depending on the type of materials used. Many of our signals have now reached the end of the life cycle.

Project Financial Summary

Financial Data	Prior Actual	Budget 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	10 Year Budget	Grand Total
Project Costs	395,850	582,974	50,500	818,981	0	568,045	144,851	147,748	150,703	461,152	313,584	319,856	2,975,420	3,954,244
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		582,974	50,500	818,981	0	568,045	144,851	147,748	150,703	461,152	313,584	319,856	2,975,420	
Total	395,850	582,974	50,500	818,981	0	568,045	144,851	147,748	150,703	461,152	313,584	319,856	2,975,420	3,954,244
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 820200 Traffic Signal Light Emitting Diode Array Replacements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	1997-98	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Dennis Ng
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation	Goal:	1.C3.3, 1.C3.4	Fund:	610 Infrastructure Renov & Replace
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund:	100 General Fund Assets

Statement of Need

This project funds replacement of the red traffic signal light emitting diode arrays (LED) as they approach the end of their useful life. The LEDs are warranted for seven years. It is expected that 15% of the installed LED arrays will need to be replaced annually. The LED arrays result in a significant savings to the City in power consumption and annual replacement costs. This project will be increased when the green signal LED arrays and pedestrian crossing indicators are added to the system.

Service Level

This project will replace the Light Emitting Diode lights used for traffic signals. The expected lifetime of these lights is 7-10 years and it is anticipated that 15% of these lights will need to be replaced per year beginning in FY 2004/05 fiscal year. The previous incandescent lights that were used were replaced every 1-2 years.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	10 Year Budget	Grand Total
Project Costs	57	0	55,090	56,192	57,316	58,462	59,632	60,824	62,041	63,282	64,547	65,838	603,224	603,281
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	55,090	56,192	57,316	58,462	59,632	60,824	62,041	63,282	64,547	65,838	603,224	
Total	57	0	55,090	56,192	57,316	58,462	59,632	60,824	62,041	63,282	64,547	65,838	603,224	603,281
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822710 Mathilda Avenue Railroad Overpass Improvements

Category:	Infrastructure	Type:	Street & Traffic Signals	Department:	Public Works
Origination Year:	2001-02	Phase:	Design	Project Manager:	Hira Raina
Planned Completion Year:	2004-05	% Complete:	5	Project Coordinator:	Jack Witthaus
Origin:	Staff			Interdependencies:	none
Element:	1 Land Use and Transportation	Goal:	1.C3.1	Fund:	385 Capital Projects
Sub-Element:	none	Neighborhood:	City Wide	Sub-Fund:	600 Gas Tax Funded

Statement of Need

The existing bridge has been rated below standard by CalTrans. The project will provide widening and possible reconstruction of a portion of the bridge to improve traffic for Mathilda Avenue and Evelyn Avenue. This project is subject to 80% reimbursement from State/Federal funds. Funding has been granted for preliminary engineering, and is anticipated for construction.

Service Level

This project will upgrade/replace the Mathilda Avenue Bridge over the CALTRAIN line. This structure has been rated by CALTRANS as obsolete due to existing conditions that do not meet current design standards. The project will correct these deficiencies and add a southbound to eastbound connection to Evelyn Avenue and the Downtown area. The project is funded by a Federal grant to pay for 80% of the total project costs.

Issues

Project revenues are reimbursed based on actual costs incurred.

Project Financial Summary

Financial Data	Prior Actual	Budget 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	10 Year Budget	Grand Total
Project Costs	85,806	9,414,194	8,000,000	0	0	0	0	0	0	0	0	0	8,000,000	17,500,000
Revenues														
Seismic Retrofit of Bridges		800,000	6,400,000	0	0	0	0	0	0	0	0	0	6,400,000	
ISTEA Grants		6,782,122	0	0	0	0	0	0	0	0	0	0	0	
Total	17,878	7,582,122	6,400,000	0	0	0	0	0	0	0	0	0	6,400,000	14,000,000
Transfers-In														
Gas Tax Fund		668,072	2,395,352	0	0	0	0	0	0	0	0	0	2,395,352	
Capital Project Fund--Traffic Mitigation		0	92,300	0	0	0	0	0	0	0	0	0	92,300	
Fund Reserves		276,348	0	0	0	0	0	0	0	0	0	0	0	
Total	67,928	944,420	2,487,652	0	0	0	0	0	0	0	0	0	2,487,652	3,500,000
Operating Costs	0	0	0	5,971	6,150	6,334	6,524	6,720	6,922	7,129	7,343	7,564	60,657	60,657